

410 Rec'd CT/PTO 02 JUN 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Claude JOLY

Serial No.: 09/508,094

Filed: March 16, 2000



METHOD AND DEVICE FOR TREATING A HEAVILY LOADED
LIQUID EFFLUENT IN PARTICULAR WITH NITROGEN AND
WITH PHOSPHORUS

RESPONSE TO NOTIFICATION OF MISSING REQUIREMENTS
UNDER 35 U.S.C. 371

Box PCT
Assistant Commissioner of Patents
Washington, D.C. 20231

Attention: APPLICATION BRANCH
MISSING REQUIREMENTS OF APPLICATION

Sir:

With respect to the above-identified national phase application, the following are filed herewith in response to the Notification of Missing Requirements under 35 U.S.C. 371, mailed May 8, 2000, copy attached.

- ☒ Declaration in compliance with 37 C.F.R. §1.63.
- ☒ English translation of application and Preliminary International Examination Report.
- ☒ Assignment document with Cover Sheet and \$40.00 fee for Recordation of Assignment.
- ☒ Preliminary Amendment to Lessen Fees.
- ☒ If a Petition for Extension of time is necessary and the Petition and/or the check is not enclosed, this will act as the Petition and applicant herewith petitions the Commissioner to extend the time for response and charge and fees necessary under 37 CFR 1.17 (a) - (d) to Deposit Account No. 06-1358. The Commissioner is also authorized to charge payment of any other additional fees associated with this communication or credit any overpayment to Deposit Account No. 06-1358. A duplicate copy of this sheet is enclosed.

Appln. No. 09/508,094

Respectfully submitted,

JACOBSON, PRICE, HOLMAN & STERN, PLLC

By 

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Atty. Docket: P65124US0
Date: June 2, 2000
DDP/cmf

02 JUN 2000

PATENTS CONVENTION TREATY
PCT
PRELIMINARY INTERNATIONAL EXAMINATION REPORT
(Article 36 and Regulation 70 of PCT)

09/508094

Case reference of applicant or agent: 1545B.B.003.WO

International application No.: PCT/FR98/01881
Date of International filing: 03/09/1988
Priority date: 16/09/1997
International Patents Classification: C02F1/66
Applicant: B.C.H. HOLDING et al.

1. The present Preliminary International Examination Report drawn up by the administration charged with preliminary international examination, is sent to the applicant in accordance with Article 36.

2. This REPORT comprises 5 pages, including the present cover sheet.

[X] It is accompanied by ANNEXES, i.e. pages of description, claims or drawings which have been amended and which serve as the basis of the present report, or pages containing rectifications made at the administration charged with the preliminary international examination (see Regulation 70.16 and Instruction 607 of the Administrative Instructions of the PCT).

These annexes comprise 4 pages.

3. The present report contains indications relating to the following points:

I [X] Basis of the report

V [X] Declaration with grounds according to Article 35(2) with regard to novelty, inventive activity and the possibility of industrial application; citations and explanations supporting this declaration.

Date of presentation of the Preliminary International Examination application:
12/04/1999

Date of completion of the present report: (illegible)

Authorised Official: Miebach, V.

PRELIMINARY INTERNATIONAL EXAMINATION REPORT
International Application No. PCT/FR98/01881

I. Basis of the Report

1. This report has been drawn up on the basis of the following elements (the replacement pages which have been submitted to the receiving office in response to an invitation made in accordance with Article 14 are considered, in the present report, as "initially filed" and are not attached in an annex to the report since they do not contain amendments):

Description, pages:

2-6 initial version
1,1a received with fax of 15/12/1999

Claims, No.:

1-12 received with fax of 15/12/1999

Drawings, pages:

1/1 initial version

2. N/A
3. N/A
4. N/A

V. Declaration with grounds according to Article 35 (2) as regards novelty, inventive activity and the possibility of industrial application; citations and explanations supporting this declaration

1. Declaration

Novelty Yes: Claims 1-12
Inventive Activity Yes: Claims 1-12
Possibility of industrial application: Yes: Claims 1-12

2. Citations and explanations
See separate sheet

Concerning Point V

Declaration with grounds in accordance with Article 35(2) with regard to novelty, inventive activity and the possibility of industrial application; citations and explanations supporting this declaration

The invention describes a method (Claim 1) and a device (Claim 8) for treating a liquid effluent heavily loaded with nitrogen and with phosphorus, such as for example pig slurries.

The method is characterised by a stage for the adding of a basic reagent, then a stage for pulverising the effluent in a stream of air.

The device is characterised by a pulverisation reactor having an aspiration system and a storage tank.

Prior Art

The document US-A-4 689 156 describes a method and a device for the extraction of nitrogen for the treatment of used water. The stage for the extraction of ammonia is carried out in a column filled or pulverising the effluent in air above a pond (Column 4, lines 35 and 42+43).

Novelty

The method defined in Claim 1 differs from US-A-4 689 156 in that:

- a) the effluent to be treated is heavily loaded with nitrogen and with phosphorus
- b) the pulverisation stage is carried out in an air stream and not in the open air above a pond

The device defined in Claim 8 differs from US-A-4 689 156 in that it comprises an aspiration system (valve and openings) in the pulverisation reactor.

Inventive Activity

The problem is to provide a method for treating a heavily loaded liquid effluent with nitrogen and with phosphorus such as pig slurries which allows the nitrogenized charge to be reduced in an efficient manner (for example by 80%, page 5, line 29).

The solution is to extract ammonia by a pulverisation stage in a stream of air created by a fan and openings in the extraction reactor. US-A-4 689 156 does not concern at all the same technical problem since the charge of nitrogen is much higher than in the present invention. In addition, the pulverisation in a stream of air for extracting the ammonia in an efficient manner is not disclosed. The object of Claim 1 consequently implies an inventive activity (Article 33(3) PCT).

The same reasoning applies to Claim 8 (device). The object of the invention is to propose a device for treating a liquid effluent heavily loaded with nitrogen and with phosphorus. The solution is a system of ventilation in the extraction reactor. This solution is not disclosed in US-A-4 689 156. Thus, the object of Claim 8 implies an inventive activity.

Translation of additional paragraph - Amended sheet page 1, lines 26-29:

As an example, the American Patents No. 4:684.156 and No. 4.093.544 will be mentioned, but which both concern methods and devices for treating used water lightly loaded with nitrogen (approximately 15 ppm of N-NH_4^+), therefore of urban origin.

Translation of amended Claim 8:

8. A device for implementing the method according to Claims 1 to 7, characterised in that it comprises:

- an ammonia-extracting reactor (1) or degassing reactor, which comprises a lower part (2) collecting in particular basified liquid effluent and an upper part (5) in which there is situated a pulverisation rack (4) provided with nozzles (6), connected to the lower part (2) of said reactor (1) and comprising a feed pump (7), openings (8) being arranged between the two parts to allow exterior air to enter, an air exhaust fan being connected to said upper part (5); and
- a tank for storing the treated liquid effluent derived from the ammonia-extracting reactor (1).

Original Claim 10 is deleted. Original Claims 11, 12, 13 are renumbered as 10, 11, 12. □

105-9
MM 5/10/00



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: ASSISTANT COMMISSIONER FOR PATENTS
Box PCT
Washington, D.C. 20231

CMF

U.S. APPLICATION NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
09/508094	JOLY	C
JACOBSON PRICE HOLMAN & STERN THE JENIFER BUILDING 400 SEVENTH STREET NW WASHINGTON, DC 20004 2201		P65124US0
INTERNATIONAL APPLICATION NO.		
PCT/FR98/01881		
I.A. FILING DATE		PRIORITY DATE
03 SEP 98		16 SEP 97
DATE MAILED: 08 MAY 2000		

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

1. The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as
- ☐ a Designated Office (37 CFR 1.494),
 - ☒ an Elected Office (37 CFR 1.495):

☒ U.S. Basic National Fee.

☒ Copy of the international application in:

☒ a non-English language.

☐ English.

☒ Translation of the international application into English.

☐ Oath or Declaration of inventor(s) for DO/EO/US.

☐ Copy of Article 19 amendments.

☐ Translation of Article 19 amendments into English.

☒ The International Preliminary Examination Report in English and its Annexes, if any.

☐ Translation of Annexes to the International Preliminary Examination Report into English.

☐ Preliminary amendment(s) filed _____ and _____.

☐ Information Disclosure Statement(s) filed _____ and _____.

☐ Assignment document.

☐ Power of Attorney and/or Change of Address.

☐ Substitute specification filed _____.

☐ Verified Statement Claiming Small Entity Status.

☒ Priority Document.

☒ Copy of the International Search Report ☒ and copies of the references cited therein.

☐ Other:

2. The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

☒ a. Translation of the application into English. Note a processing fee will be required if submitted later than the appropriate 20 or 30 months from the priority date.

☐ The current translation is defective for the reasons indicated on the attached Notice of Defective Translation.

☐ b. Processing fee for providing the translation of the application and/or the Annexes later than the appropriate 20 or 30 months from the priority date (37 CFR 1.492(f)).

☒ c. Oath or declaration of the inventors, in compliance with 37 CFR 1.497(a) and (b), identifying the application by the international application number and international filing date.

☐ The current oath or declaration does not comply with 37 CFR 1.497(a) and (b) for the reasons indicated on the attached PCT/DO/EO/917.

☐ d. Surcharge for providing the oath or declaration later than the appropriate 20 or 30 months from the priority date (37 CFR 1.492(e)).

3. Additional claim fees of \$ _____ as a ☐ large entity ☐ small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due. See attached PTO-875.

ALL OF THE ITEMS SET FORTH IN 2(a)-2(d) AND 3 ABOVE MUST BE SUBMITTED WITHIN ONE MONTH FROM THE DATE OF THIS NOTICE OR BY ☐ 21 OR ☒ 31 MONTHS FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

4. Translation of the Annexes **MUST** be submitted no later than the time period set above or the annexes will be cancelled. Note processing fee will be required if submitted later than 30 months from the priority date.

5. ☐ The Article 19 amendments are cancelled since a translation was not provided by the appropriate 20 (37 CFR 494(d)) or 30 (37 CFR 1.495(d)) months from the priority date.

Applicant is reminded that any communication to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above. (37 CFR 1.5)

A copy of this notice *MUST* be returned with this response.

Enclosed:

☐ PCT/DO/EO/917

☐ Notice of Defective Translation

☐ PTO-875

FORM PCT/DO/EO/905 (December 1997)

Deborah Williams
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